

EXHIBITION OF INDUSTRY OF ALL NATIONS.
CLASS 5, F 12 AND 13.—LOCOMOTIVE ENGINE DEPARTMENT.

PROSPECTUS OF AN IMPROVED SYSTEM OF PAVING STREETS,
AND
CRANNIS AND KEMP'S PATENT WOOD PAVING:

CLEAN DRY STREETS, ECONOMY, DURABILITY, QUIET, AND GREATER FREEDOM FROM SLIPPERINESS THAN ON ANY
STONE PAVEMENT.

The Patentsmen, after some years of close observation, are more than ever convinced that Wood Paving is as far as the material is concerned, in no failure; the fault lies not in the material, but in the system of laying it down. Were the streets paved with stone in the same manner as wood has been laid, they would be constantly covered with filth, horses for who would venture to start a horse with a hand behind him on the smooth surface of the Flag Stone Pavement, unless he wished to see him prostrate? And where has there been a piece of Wood Paving but what has had a smooth surface, or ten times worse than smooth, by having V-shaped grooves cut in the surface of the blocks?

An inspection of a Model at the Crystal Palace, Class 5, F 12 and 13, and at the Polytechnic Institution, with the assistance of the following Diagrams, will at once convince the reader that the system now respectfully submitted to the public is entirely different to any Paving hitherto introduced, and possesses the following advantages over all others, viz:—

1st. *Superiority of Construction.*
2nd. *Adaptation to general use, and entire freedom from slipperiness;* for the Patentsmen believe it will be safer to travel over than a Macadamised road, the surface will be more even, and a better foothold to be obtained.

3rd. *Facility of Removal and Replacement.* Any single block, if worn, can be replaced by a new

one in a few minutes, so that no stoppage of the traffic will be necessary for repairs, or for removing or setting a gas or water pipe.

4th. *Economy of Material and Labour.* It can be laid in the first instance as cheap as any other system, and kept in the best repair at far less expense; the foundation being neither wet nor dry, and covered in from air, will last for a great many years.

5th. *Provision for Drainage.* No settling of water between the foundation and superstructure, as with combinations of concrete and wood, but all surface-water covered direct to the sewers, leaving streets very dry and clean, and far more healthy than on the present system of either wood or stone, where water is allowed to stagnate and endanger the health of the inhabitants, no provision being made for its removal excepting along the channels or gutters, to effect which the pavement must be so much arched to carry the water off to the sides as to prevent the horse treading on an even surface, excepting just in the centre of the road, where he but seldom has an opportunity of travelling in the streets of London, or other towns of great traffic. And

6th. *Durability.* A good substratum and thorough drainage being secured, no partial sinking can take place; the whole road or street must go together, the curbs give way and the planks give under before any inequalities can present themselves in the surface, beyond what are intended in the foothold and their wear and tear.

FIG. 1.

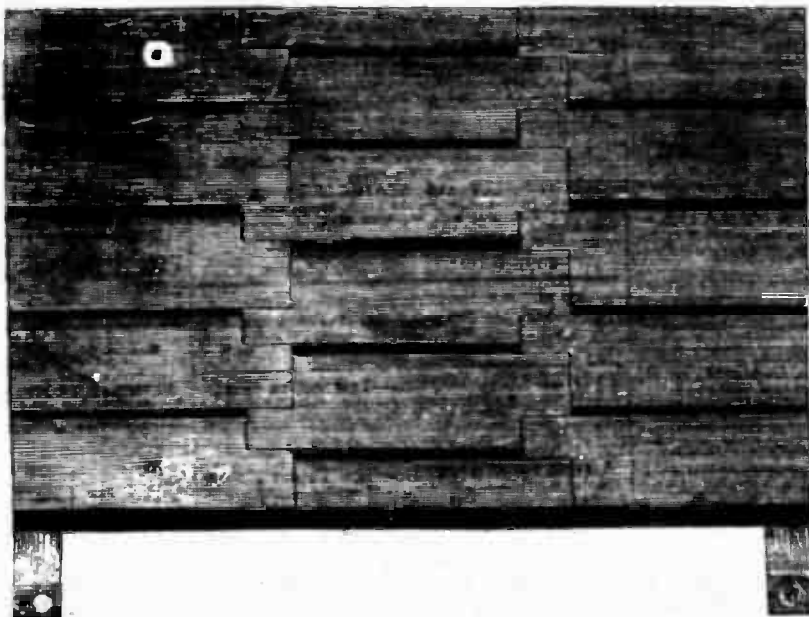


FIG. 2.



FIG. 3.



Figure 1 represents Messrs. CRANNIS and KEMP'S method of forming a foundation of blocks. A number of short planks, a, a, are laid transversely on longitudinal planks or beams, b, b, and both the transverse and longitudinal ends are so set in, or dovetailed one into the other, that they form a structure possessing all the strength of the arch. In respect of any weight or force which can be applied in a downward or lateral direction, while, at the same time, they can be taken up when required with the greatest ease. The mode in which the transverse planks are formed is by double bevelling them at the ends, in the manner shown in the view of a single block given in Fig. 3; and by leaving a ridge, d, between the two bevells, the result is, that when the blocks are put together, a number of small open spaces, e, e, are left, which serve for the purpose of drainage.

On the foundations, such as are above described, a superstructure of blocks of any convenient form, may be placed: but Messrs. Crannis and Kemp would particularly recommend the following as uniting in an unequalled degree simplicity of construction, sure footholding for horses, cheapness, and durability.

Figure 2 is a side view of blocks of wood, which, when placed in alternate rows of high and low blocks, the high block in one row standing next the low block in the adjoining row, forms a pavement of the description shown in the perspective view of an entire carriage way, Fig. 1. It should be observed, at every point a secure foothold for horses, without any surface-grooving which, and in point of efficiency generally, may challenge comparison with any system of paving hitherto laid, whether of wood or stone.

FIG. 4.



Figure 4 is a perspective view of a carriage way, showing Messrs. CRANNIS and KEMP'S improved system of Paving by forming a sub-stratum of large gravel, broken stones, or other stones, 12 to 18 inches deep, the bottom of which are laid in a firm, compacted, and level surface, to receive perfect drainage, on which structure their plank-foundation and superstructure is laid, thus forming a system of Paving on a principle, the Patentsmen believe, hitherto untried, and having

advantages over all systems hitherto adopted. The preceding plans form only a small portion of the various modes of Paving included in Messrs. CRANNIS and KEMP'S Patent.

The Patentsmen are desirous of establishing a Company to carry out their views, and solicit the co-operation of parties desirous of introducing a quiet, clean, and safe system of Paving. Communications addressed to the Patentsmen, 5 Sydenham-road, Old Kent-road, will have immediate attention.